News Report

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1978 News Report Index

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News Report is a monthly register of activities of the National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council.

This index is intended insofar as possible to provide a digest of the contents of the 1978 issues of *News Report*. Because the publication is devoted in large measure to discussion of reports issued by committees and panels of these organizations, principal entries generally are listed by title of report discussed (not by title of *News Report* article), alphabetically. Names of persons, organizations, and agencies also are listed alphabetically. Subject headings and cross-references are included for topics of particularly wide interest (e.g., agriculture, energy, environment). The *News Report Index* is compiled by Elaine S. Hause.

Copies of the 1976 and 1977 indexes are available from the *News Report* office, National Academy of Sciences, 2101 Constitution Avenue N.W., Washington, D.C. 20418. Back volumes of *News Report* in microform can be ordered from University Microfilms International, 300 North Zeeb Road, Ann Arbor, Mi. 48106.

Adler, William F., chairman of Committee on Conservation of Materials in Energy Systems Through the Reduction of Erosion; *see Erosion Control in Energy Systems*

Agency for International Development, U.S.: *see Strengthening U.S. Programs to Improve Health in Developing Countries*

agriculture: *see Aquaculture in the United States; Kepone/Mirex/Hexachlorocyclopentadiene: An Environmental Assessment; Methane Generation from Human, Animal, and Agricultural Wastes; Workshop on Solar Energy for the Villages of Tanzania; Microwave Remote Sensing from Space for Earth Resource Surveys; Nitrates: An Environmental Assessment; Nutrient Requirements of Dairy Cattle; Wheat in the People's Republic of China*

Agriculture and Renewable Resources, Board on, National Research Council Commission on Natural Resources: *see Aquaculture in the United States; Nutrient Requirements of Dairy Cattle*

Agriculture, U.S. Department of: *see Aquaculture in the United States*

Airborne Particles (Medical and Biologic Effects of Environmental Pollutants), Subcommittee on Airborne Particles, Committee on Medical and Biologic Effects of Environmental Pollutants, Division of Medical Sciences, National Research Council Assembly of Life Sciences; excerpt—Aug, 5

Aldrich, Harl P., Jr., chairman of Committee on Safety of Dams; *see Safety of Dams*

American Council of Learned Societies: *see Wheat in the People's Republic of China*

Anderson, Arthur G., chairman of Committee on Remote Sensing Programs for Earth Resource Surveys; *see Microwave Remote Sensing from Space for Earth Resource Surveys*

Animal Nutrition, Committee on, Board on Agriculture and Renewable Resources, National Research Council Commission on Natural Resources: *see Nutrient Requirements of Dairy Cattle*

Animal Models for Research on Aging, Committee on, National Research Council Assembly of Life Sciences' Institute of Laboratory Animal Resources; established to examine advantages and limitations of using various animal species as models in gerontological research; supported by the National Institute on Aging—Sept, 1

Aquaculture, Committee on, Board on Agriculture and Renewable Resources; National Research Council Commission on Natural Resources: *see Aquaculture in the United States*

Aquaculture in the United States: Constraints and Opportunities, Committee on Aquaculture, Board on Agriculture and Renewable Resources, National Research Council Commission on Natural Resources; the committee found that aquaculture, with a few exceptions, has not been but could be economically practical on a large scale in the U.S. The committee explored the problems which have been limiting factors in the development of aquaculture. Viewing aquaculture in the long term as an important contributor to increased food production, the committee sees a "changing situation in the United States with respect to cost, availability and acceptability of aquatic foods." The committee's report calls for new programs of research, and development of a "National Aquaculture Plan" to coordinate related activities of several Federal agencies. The study was requested by the National Oceanic and Atmospheric Administration —Mar, 1, 6-7

"Army Technologists: 29-Year Follow Up for Cause of Death," Medical Follow-up Agency, Division of Medical Sciences, National Research Council Assembly of Life Sciences; a study, reported in *Radiology*, March 1978, comparing causes of death in a population of 6,560 men trained by the U.S. Army as x-ray technicians in World War II with mortality in a control group of Army laboratory or pharmacy technologists, found "no evidence that the military radiological technologists have suffered adverse effects in consequence of their occupational exposures," which averaged less than three years for the group (only 19 percent continued in similar work after their Army experience). This is one of a series of follow-up studies undertaken at the request of the Veterans Administration, the Department of Defense, and the Public Health Service—Jul, 10

Assessment of Low- and Intermediate-Btu Gasification of Coal; Assessment of Technology for the Liquefaction of Coal; Assessment of Technology for the Liquefaction of Coal: Summary, Ad Hoc Panel on Low-Btu Gasification of Coal, and Ad Hoc Panel on Liquefaction of Coal, Committee on Processing and Utilization of Fossil Fuels, National Research Council Commission on Sociotechnical Systems; the panel on liquefaction reported that a few technologies for coal-liquefaction are at or near "the commercialization stage" but far from meeting the needs of the U.S. economy, estimating that it will take at least 15 years to build a synthetic liquid fuels industry that would produce about 15 percent of the currently projected post-1990 demand for oil, at an estimated price of $20 to $30 per barrel, based on 1976 costs. The panel recommended building pilot plants large enough to be put to commercial use eventually—thus eliminating the cost of small "demonstration plants"—using the most promising processes now available. Focusing attention on applications for low- and intermediate-Btu gases, the panel on gasification noted possible savings in removal of sulfur compounds and possible increased efficiency in electric-power generation, but concluded that the prohibitively high costs of these gases preclude their use except under certain conditions, for example when pollution-reduction is at a premium.

Part II of two parts

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These studies are two in a series undertaken for the Energy Research and Development Administration—Jan, 1, 6-7
An Assessment of Mercury in the Environment (Scientific and Technical Assessments of Environmental Pollutants), Panel on Mercury, Coordinating Committee for Scientific and Technical Assessments of Environmental Pollutants, Environmental Studies Board, National Research Council Commission on Natural Resources; excerpts—Mar, 2-3
atmosphere: *see* "Global Weather Experiment"; *Nitrates: An Environmental Assessment; Platinum-Group Metals; Response to the Ozone Protection Sections of the Clean Air Act Amendments of 1977: An Interim Report; Sulfur Oxides*
Atmospheric Research, Committee on: *see* "Global Weather Experiment"
awards, National Academy of Engineering: John R. Pierce received the Founders Medal of the Academy in November 1977—Jan, 3
awards, National Academy of Sciences: nine persons were honored for contributions and service at the Academy's annual meeting: the *Comstock Prize* to R. Davis, Jr.; the *National Academy of Sciences Public Welfare Medal* to D. A. Henderson; the *John J. Carty Medal* to J. N. Mather; the *Henryk Arctowski Medal* to J. R. Winckler; the *H. P. Robertson Memorial Lectureship* to Sir G. Porter; the *U. S. Steel Foundation Award in Molecular Biology* to G. Blobel; the *Selman A. Waksman Award in Microbiology* to H. Green; the *Arthur L. Day Prize and Lectureship* to J. Verhoogen; the *National Academy of Sciences Award for Distinguished Service* to N. D. Vietmeyer—Jul, 9

Behavioral and Social Sciences, National Research Council Assembly of: new projects announced: Committee on Evaluation of Poverty Research; Panel on Legislative Impact on Courts, Committee on Research on Law Enforcement and Criminal Justice; Panel for the Study of the Policy Formation Process in Selected Areas of Federal Policy Affecting Children and Families—Jan, 3; Review of Decennial Census Plans—Feb, 3; Assessment of the Public Service Employment Programs of CETA [Comprehensive Employment and Training Act of 1973] —Mar, 3; Committee on Ability Testing; Committee on Occupational Classification and Analysis—Apr, 3; Committee on Aging—Jul, 10; Study Project on Children's Services; Study of Public Policies Contributing to the Institutionalization of Children and Youth—Nov, 3; Review of Small-Area Estimates of Population and Income; Study of Alternative Policies Affecting the Prevention of Alcohol Abuse and Alcoholism; Study of the Potential for Offender Rehabilitation of Extra-Institutional Programs for Achieving Behavior Change—Dec, 3; *see also CETA [Comprehensive Employment and Training Act]: Assessment and Recommendations;* Child Development Research and Public Policy; *Common Processes in Habitual Substance Use: A Research Agenda;* Decennial Census Plans, Panel on; *Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates*
Berl, Walter G., cochairman (with Douglas C. MacMillan); *see* Liquefied Natural Gas, Panel on
Bermann, Claudio Santiago: *see* Human Rights, National Academy of Sciences Committee on
Biological Sciences, Division of, National Research Council Assembly of Life Sciences: *see Conservation of Germplasm Resources: An Imperative; Human Vitamin B_6 Requirements; Research Priorities in Tropical Biology, Committee on*
Blumstein, Alfred, chairman of Panel on Research on Deterrent and Incapacitative Effects; *see Deterrence and Incapacitation*
Boyd, James, chairman; *see* Surface Mining and Reclamation, Committee on
Brezonik, Patrick L., chairman of Panel on Nitrates, Environmental Studies Board; *see Nitrates: An Environmental Assessment*
Bureau of Labor Statistics, U.S.: *see Science, Engineering, and Humanities Doctorates in the United States: 1977 Profile*
Bureau of Reclamation, U.S.: *see Safety of Dams*
Bureau of Mines, U.S.: *see Contingency Plans for Chromium Utilization; Technological Innovation and Forces for Change in the Mineral Industry*
Bureau of Radiological Health, U.S.: *see A Review of the Use of Ionizing Radiation for the Treatment of Benign Diseases.*
Bureau of the Census, U.S.: *see* Decennial Census Plans, Panel on

Carbon Monoxide (Medical and Biologic Effects of Environmental Pollutants), Subcommittee on Carbon Monoxide, Committee on Medical and Biologic Effects of Environmental Pollutants, Division of Medical Sciences, National Research Council Assembly of Life Sciences; noting that carbon monoxide is the most abundant and widespread of all atmospheric pollutants, the subcommittee found troubling questions concerning effects of carbon monoxide on humans and plants; subcommittee summarized literature for the Environmental Protection Agency in updating the 1970 Air Quality Criteria for Carbon Monoxide. The subcommittee found urgent need for fundamental research on fetal susceptibility to carbon monoxide, especially from cigarette smoke, and on carbon monoxide as a contributing or precipitating factor in heart attacks—Jan, 1, 4-5
Case Studies in Maritime Innovation, Committee on Innovation and Technology Transfer in the Maritime Industry, Maritime Transportation Research Board, National Research Council Commission on Sociotechnical Systems; excerpts—Sept, 5
Center for Disease Control, U.S.: *see Strengthening U.S. Programs to Improve Health in Developing Countries*
CETA [Comprehensive Employment and Training Act]: Assessment and Recommendations, Committee on Evaluation of Employment and Training Programs, National Research Council Assembly of Behavioral and Social Sciences; the committee's study, supported by the Ford Foundation with supplementary support from the U.S. Department of Labor, found that manpower programs under CETA generally are "more effective" than earlier systems; there are still many problems, however, in increasing the employability of disadvantaged persons and in attempting to deal with the problems of cyclical unemployment by public-service employment —Dec, 4-5
Child Development Research and Public Policy, National Research Council Assembly of Behavioral and Social Sciences Committee on; the committee, with support from the Ford Foundation, is examining the goal of decreasing institutionalization of juveniles; the committee's Panel on Deinstitutionalization is studying how status offenders and dependent or neglected children are dealt with in the public service delivery system—Nov, 1, 6, 7
Clean Air Act Amendments of 1977: *see Response to the Ozone Protection Sections of the Clean Air Act Amendments of 1977: An Interim Report*
Cohen, Bennett, J., chairman; *see* Animal Models for Research on Aging, Institute of Laboratory Animal Resources Committee on
climate: *see Geological Perspectives on Climatic Change;* "Global Weather Experiment"; *The Global Weather Experiment—Perspectives on its Implementation and Exploitation; Response to the Ozone Protection Sections of the Clean Air Act Amendments of 1977: An Interim Report*
Cloud, Preston, chairman of the Ad Hoc Committee on Geology and Climate; *see Geological Perspectives on Climatic Change*
Coast Guard, U.S.: *see* Liquefied Natural Gas, Panel on
Commerce, U.S. Department of: *see* Decennial Census Plans, Panel on
Common Processes in Habitual Substance Use: A Research Agenda, Committee on Substance Abuse and Habitual Behavior, National Research Council Assembly of Behavioral and Social Sciences; the committee's study, undertaken for the National Institute on Drug Abuse, sets forth a research agenda based on the conclusion that public policy-makers and social scientists need a greater understanding of the interaction of abused substances (drugs and food) with the psychological characteristics of the individual and his environment, and the processes and characteristics that are common to habitual use. The committee identified several interactive "commonalities" in habitual substance use—predisposition, social setting, reinforcement, tolerance and physiological adjustment, the withdrawal process, and public policy—and established priorities for multidisciplinary research, with specific research questions for such areas of study as biochemistry, genetics, pharmacology, and psychobiology—Jan, 1-3
Comprehensive Employment and Training Act of 1973: *see CETA [Comprehensive Employment and Training Act]: Assessment and Recommendations*
Comprehensive Survey of Doctorate Recipients, National Research Council Commission on Human Resources: *see Science, Engineering, and Humanities Doctorates*

in the United States: 1977 Profile

Conservation of Germplasm Resources: An Imperative, Committee on Germplasm Resources, Division of Biological Sciences, National Research Council Assembly of Life Sciences; excerpts—Jul, 3

Conservation of Materials in Energy Systems Through the Reduction of Erosion, Committee on, National Materials Advisory Board, National Research Council Commission on Sociotechnical Systems: *see Erosion Control in Energy Systems*

Consumer Product Safety Commission, U.S.: *see A Review of the Role of Health Sciences in the Consumer Product Safety Commission*

Contingency Plans for Chromium Utilization (NMAB-335), Committee on Contingency Plans for Chromium Utilization, National Materials Advisory Board, National Research Council Commission on Sociotechnical Systems; because most of the known chromium ore reserves and potential ore reserves are in South Africa and Rhodesia and because chromium is critical to U.S. industry, the report warns that the United States "is strategically more vulnerable to a long-term chromium embargo than to an embargo of any other natural resource . . ." Chromium is indispensable, according to the committee, in many high-strength steels, high-temperature metals and corrosion-resisting alloys used to manufacture such essential products as tool steel, jet engines, petrochemical and power plant equipment. The committee found that chromium consumption could be reduced by one-third within five years through conservation and recycling; the committee also recommended stockpiling for about five years' protection—May, 1, 4-5

Council for Environmental Quality: *see Radioactive Wastes at the Hanford Reservation: A Technical Review;* Surface Mining and Reclamation, Committee on

Covert, Eugene E., chairman; *see* Review of the Space Shuttle Main Engine Development Program, Ad Hoc Committee for

Dairy Cattle Nutrition, Subcommittee on, Committee on Animal Nutrition, Board on Agriculture and Renewable Resources, National Research Council Commission on Natural Resources: *see Nutrient Requirements of Dairy Cattle*

Dam Inspection Act of 1972: *see Safety of Dams*

Data Needs, Committee on: *see National Needs for Critically Evaluated Physical and Chemical Data*

deaths, of members of National Academy of Engineering: R. A. Bowman—Mar, 8; P. C. Goldmark—Feb, 7; G. A. Hawkins—Jul, 3; T. C. Kavanagh—Aug, 3; R. Kompfner—Mar, 8; J. E. McKeen—Jul, 3; B. Moreell—Nov, 3; R. W. Roberts—Apr, 7; P. Sporn—Apr, 7

deaths, of members and foreign associates of National Academy of Sciences: C. H. Best—Aug, 3; J. B. Conant—Apr, 7; E. Feenberg—Feb, 7; K. Gödel—Apr, 7; P. C. Goldmark—Feb, 7; D. J. Ingle—Nov, 3; R. Kompfner—Mar, 8; M. Kunitz—Aug, 3; A. R. Luria—Mar, 8; O. K. Rice—Aug, 3; L. B. Slichter—Aug, 3; P. Sporn—Apr, 7; G. Wentzel—Nov, 3

Decennial Census Plans, Panel on, Committee on National Statistics, National Research Council Assembly of Behavioral and Social Sciences; in response to a request from the Secretary of Commerce, the panel is assessing proposed improvements in Bureau of the Census procedures—Feb, 1

Defense, U.S. Department of: *see* "Army Technologists: 29-Year Follow Up for Cause of Death"; "Global Weather Experiment"

Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates, Panel on Research on Deterrent and Incapacitative Effects, Committee on Research on Law Enforcement and Criminal Justice, National Research Council Assembly of Behavioral and Social Sciences; panel reviewed recent studies of the relation between crime rates and the risk or severity of criminal sanctions, and concluded that the evidence is inconclusive regarding the deterrent effects of apprehension, conviction, imprisonment, and execution. The panel found flaws in the design and conduct of many studies on punishment policies and crime rates, and recommended that the National Institute of Law Enforcement and Criminal Justice inform researchers of changes in law or enforcement that provide opportunities for studying crime-prevention, and advise researchers on study design—May, 1-2

Dietary Allowances, Committee on, Food and Nutrition Board, Division of Biological Sciences, National Research Council Assembly of Life Sciences: *see Human Vitamin B_6 Requirements*

D'Itri, Frank M., chairman of Panel on Mercury; *see An Assessment of Mercury in the Environment*

Draper, E. Linn, chairman; *see* Implementation Requirements of Environmental Standards, Panel on, Committee on Radioactive Waste Management

Dresher, William H., chairman of Committee on Mineral Technology; *see Technological Innovation and Forces for Change in the Mineral Industry*

Economic affairs: *see Assessment of Low- and Intermediate-Btu Gasification of Coal; Assessment of Technology for the Liquefaction of Coal; Assessment of Technology for the Liquefaction of Coal: Summary; Case Studies in Maritime Innovation; CETA [Comprehensive Employment and Training Act]: Assessment and Recommendations; Contingency Plans for Chromium Utilization; Report of the Committee on the Steel Industry Study for the Office of Science and Technology Policy; A Review of the Role of Health Sciences in the Consumer Product Safety Commission; Science, Engineering, and Humanities Doctorates in the United States: 1977 Profile; Technological Innovation and Forces for Change in the Mineral Industry*

education: *see A Manpower Policy for Primary Health Care: Report of a Study; Retention of Minority Students in Engineering; Science, Engineering, and Humanities Doctorates in the United States: 1977 Profile*

The Effects on Populations of Exposure to Low Levels of Ionizing Radiation, 1972 report by National Research Council Committee on the Biological Effects of Ionizing Radiations; cited; *see A Review of the Use of Ionizing Radiation for the Treatment of Benign Diseases*

elections, Institute of Medicine: 40 U.S. scientists and health professionals were elected to first five-year terms beginning on January 1, 1978 and another scholar, D. L. Bazelon, was elected directly to senior membership; new members are: D. L. Azarnoff, L. R. Bristow, J. W. Bussman, B. Childs, R. K. Chow, L. E. Cluff, R. Crawshaw, R. A. Derzon, J. T. Dunlop, N. J. Elgee, E. C. Evans, J. J. Feldman, W. R. Felts, C. D. Flagle, R. S. Hanft, D. A. Henderson, R. L. Hill, J. P. Hughes, C. B. Jackson, Jr., F. S. Jaffe, S. Katz, G. L. Klerman, B. R. Lawton, A. Leaf, E. J. Levit, V. Loeb, Jr., R. A. Merrill, R. H. Moser, J. P. Newhouse, G. T. Perkoff, A. S. Relman, G. D. Rosenthal, I. J. Selikoff, B. Starfield, D. W. Talmage, C. E. Taylor, R. L. Van Citters, K. S. Warren, R. L. Wilson, A. Zaffaroni—Feb, 6; 39 persons were elected to membership and 4 others were elected directly to senior membership; new senior members are: L. Baumgartner, O. Cope, M. W. Riley, and R. F. Sognnaes; new members, beginning January 1, 1979, are: J. J. Alpert, S. H. Altman, R. C. Atkinson, R. M. Berne, D. C. Bok, S. Bondurant, O. G. Brim, R. N. Butler, W. M. Cowan, A. D. Dixon, H. P. Dustan, J. W. Farquhar, W. H. Foege, C. C. Fordham III, F. I. Gilbert, Jr., J. E. Goyan, R. T. Gross, L. M. Gunter, S. B. Guze, B. A. M. Hamburg, J. L. Harris, A. K. Jacox, W. J. Kinnard, R. S. Lawrence, I. G. Mauksch, J. H. Medalie, G. S. Omenn, D. P. Rall, U. E. Reinhardt, L. H. Sarett, J. E. Seegmiller, M. F. Singer, C. C. Sprague, S. O. Thier, A. J. Thompson, A. C. Upton, J. A. Vohs, P. M. Wald, I. B. Weinstein—Dec, 5

elections, National Academy of Engineering: 100 U.S. engineers were elected to membership and 19 engineers were named foreign associates. Elected to a four-year term as president beginning July 1 is Courtland D. Perkins; also elected to four-year terms are: W. Kenneth Davis, succeeding William E. Shoupp, as vice president; Harold Liebowitz, succeeding James H. Mulligan, Jr., as secretary; Frederic A. L. Holloway, reelected treasurer; and N. Bruce Hannay reelected foreign secretary. Elected to three-year terms on the governing Council are: Arthur G. Hansen, Edward A. Mason, and Allen S. Russell; reelected is Robert H. Cannon, Jr.—Jun, 1; new members are: F. W. Albaugh, W. D. Alexander, Gen. L. Allen, Jr., N. Armstrong, R. Avery, H. Bandel, M. L. Baron, H. H. Bleich, B. A. Bolt, R. H. Bolt, F. W. Boulger, H. E. Bovay, Jr., R. F. Boyer, D. Brown, G. E. Burks, L. S. Cluff, R. L. Coble, C. Concordia, A. F. Corry, H. G. Cragon, L. S. Crane, G. A. Deschamps, R. L. Dickeman, R. A. Elder, V. R. Eshleman,

H. Etherington, D. C. Evans, T. E. Everhart, J. L. Flanagan, J. E. Frazier, R. L. Garwin, R. F. Gilkeson, E. T. B. Gross, W. T. Hamilton, G. N. Hatsopoulos, R. Herman, B. A. Hicks, D. C. Hogg, C. L. Hosler, Jr., H. E. Hudson, Jr., G. W. Jeffs, H. H. Kellogg, J. L. Kerrebrock, H. J. C. Kouts, R. W. Landauer, W. W. Lang, T. E. Larson, J. M. Leathers, W. S. Lee, W. J. LeMessurier, L. F. Lischer, J. R. Low, Jr., W. R. Lucas, R. W. Lucky, H. G. MacPherson, N. Marcuvitz, W. G. May, J. D. Meindl, R. G. Meyerand, Jr., H. S. Mickley, D. W. Moeller, J. R. Moore, W. W. Moore, J. J. Morgan, W. E. Morrow, Jr., W. H. Mueser, D. J. O'Connor, A. K. Oppenheim, S. Ostrach, H. M. Parker, C. K. N. Patel, H. W. Paxton, H. A. Peterson, J. W. Plummer, F. H. Poettmann, N. E. Promisel, J. A. Quinn, G. A. Roberts, L. G. Roberts, K. A. Roe, A. Roshko, D. F. Rudd, A. Saffer, R. W. Schmitt, A. C. Scordelis, L. E. Scriven, R. A. Seban, M. Shinozuka, L. H. Skromme, R. W. Staehle, J. E. Steiner, R. E. Stewart, G. W. Swenson, Jr., P. Swerling, B. Thürlimann, A. van der Ziel, I. M. Viest, A. J. Viterbi, J. Wei, K. T. Whitby —Jun, 2-5; elected foreign associates are: E. Abrahamsen, Y. Ando, P. V. Danckwerts, D. S. Davies, S. Dhawan, J. B. Gunn, T. Ipponmatsu, H. W. Kogelnik, H. Kramers, C. E. Massonnet, Sir I. McLennan, K. Muto, P. S. Neporozhny, M. J. Pelegrin, R. Schulten, H. E. D. Scovil, H. A. Smith, G. A. C. Vendryes, L. Zeevaert—Jun, 5-6

elections, National Academy of Sciences: 60 U.S. scientists were elected to membership and 15 scientists named as foreign associates at annual meeting. Thomas F. Malone was elected to a four-year term beginning July 1 as foreign secretary, succeeding George S. Hammond; new members of the governing Council, elected to three-year terms beginning July 1, are: Philip H. Abelson, Robert W. Berliner, Herbert A. Simon, and Charles H. Townes, succeeding Nicholaas Bloembergen, Bryce Crawford, Jr., R. E. Gomory, and Irwin C. Gunsalus—Jul, 1; new members are: J. Adler, P. B. Barton, Jr., G. E. Brown, E. M. Burbidge, H. L. Carson, A. Church, M. H. Cohen, S. Darlington, D. R. Davies, H. G. Dehmelt, R. I. Dorfman, E. Epstein, R. M. Fano, K. V. Flannery, J. Folch-Pi, M. E. Friedkin, D. M. Green, H. Green, P. Greengard, M. R. Haas, S. Hagiwara, R. N. Hall, J. E. Halver, C. Heidelberger, J. Imbrie, D. Jorgenson, L. P. Kadanoff, I. L. Karle, H. H. Kelley, B. Kostant, L. Krampitz, E. L. Lehmann, L. W. McKenzie, E. C. Miller, J. A. Miller, O. L. Miller, Jr., E. Nagel, M. Nomura, L. J. Old, M. J. Osborn, D. G. Quillen, R. J. Reed, P. M. Rentzepis, F. S. Rowland, H. Rubin, A. V. Schally, D. A. Shirley, W. Stoeckenius, P. K. Stumpf, P. Suppes, I. E. Sutherland, L. R. Sykes, O. Temkin, P. K. Tien, P. H. von Hippel, P. E. Waggoner, G. M. Whitesides, S. Winograd, L. Wolfenstein, C. I. Wunsch—Jul, 2-3; new foreign associates are: M. F. Atiyah, R. Bressani, L. L. Cavalli-Sforza, J. W. Cornforth, J. H. S. Gear, J. Geiss, R. A. Hinde, H. E. Huxley, H. Larsen, R. L. Mossbauer, J. Needham, G. Occhialini, J. C. Polanyi, M. Schmidt, R. Trümpy—Jul, 3, 9

Elliott, Martin A., chairman of Ad Hoc Panel on Low-Btu Gasification of Coal; *see Assessment of Low- and Intermediate-Btu Gasification of Coal; Assessment of Technology for the Liquefaction of Coal; Assessment of Technology for the Liquefaction of Coal: Summary*

Employment and Training Programs, National Research Council Assembly of Behavioral and Social Sciences Committee on Evaluation of: *see CETA: [Comprehensive Employment and Training Act]: Assessment and Recommendations*

Endangered Species Act: *see Conservation of Germplasm Resources: An Imperative*

energy: *see Assessment of Low- and Intermediate-Btu Gasification of Coal; Assessment of Technology for the Liquefaction of Coal; Assessment of Technology for the Liquefaction of Coal: Summary; Contingency Plans for Chromium Utilization; Erosion Control in Energy Systems;* Implementation Requirements of Environmental Standards, Panel on; Liquefied Natural Gas, Panel on; *Methane Generation from Human, Animal, and Agricultural Wastes; Workshop on Solar Energy for the Villages of Tanzania; Opportunities for Increasing Natural Gas Production in the Near Term. Volume I: The Tiger Shoal Field; Radioactive Wastes at the Hanford Reservation: A Technical Review; Technological Innovation and Forces for Change in the Mineral Industry*

Energy Research and Development Administration: *see Assessment of Low- and Intermediate-Btu Gasification of Coal; Assessment of Technology for the Liquefaction of Coal; Assessment of Technology for the Liquefaction of Coal: Summary; Erosion Control in Energy Systems; Radioactive Wastes at the Hanford Reservation: A Technical Review*

Energy, U.S. Department of: *see Contingency Plans for Chromium Utilization; Erosion Control in Energy Systems; Radioactive Wastes at the Hanford Reservation: A Technical Review*

Engineering Considerations for the Continuation of Deep-Sea Drilling for Scientific Purposes, Committee on, established within the Marine Board of the National Research Council Assembly of Engineering to examine technical, economic, and organizational issues involved in accomplishment of the scientific goals of a possible successor to the National Science Foundation's Deep Sea Drilling Project—Oct, 1

Engineering, National Research Council Assembly of: new projects announced: Conference on Electrical Insulation and Dielectric Phenomena and Workshop on Flammability of Solid Polymer Cable Dielectrics; Review of the Air Force Integrated Computer Aided Manufacturing Program—Feb, 3; Committee on Offshore Energy Technology, Marine Board; Committee on Technology and International Economic and Trade Issues; Panel on Polar Ocean Engineering, Marine Board—Mar, 3; Review of the Space Shuttle Main Engine Development Program—Apr, 3; Engineering Considerations for Continuation of Deep Sea Drilling for Scientific Purposes; Planning for Office of Ocean Engineering, National Oceanic and Atmospheric Administration—Oct, 3; *see also Materials Processing in Space; Retention of Minority Students in Engineering;* Review of the Space Shuttle Main Engine Development Program, Ad Hoc Committee for; *Safety of Dams*

environment: *see Airborne Particles; Aquaculture in the United States; An Assessment of Mercury in the Environment; Carbon Monoxide; Conservation of Germplasm Resources: An Imperative; The Geological Criteria for Suitable Sites of High-Level Radioactive Waste Repositories;* Implementation Requirements of Environmental Standards, Panel on; *Kepone/Mirex/Hexachlorocyclopentadiene: An Environmental Assessment;* Liquefied Natural Gas, Panel on; *Microwave Remote Sensing from Space for Earth Resource Surveys; Nitrates: An Environmental Assessment;* Odors from Stationary and Mobile Sources, Committee on; *Platinum-Group Metals; Radioactive Wastes at the Hanford Reservation: A Technical Review;* Research Priorities in Tropical Biology, Committee on; *Response to the Ozone Protection Sections of the Clean Air Act Amendments of 1977: An Interim Report; A Review of the Role of Health Sciences in the Consumer Product Safety Commission; Sulfur Oxides;* Surface Mining and Reclamation, Committee on; *Technological Innovation and Forces for Change in the Mineral Industry*

Environmental Impact of Stratospheric Flight, 1975 report by National Research Council Climatic Impact Committee; cited; *see Response to the Ozone Protection Sections of the Clean Air Act Amendments of 1977: An Interim Report*

Environmental Protection Agency: *see Aquaculture in the United States; An Assessment of Mercury in the Environment; Carbon Monoxide; Kepone/Mirex/Hexachlorocyclopentadiene: An Environmental Assessment;* Odors from Stationary and Mobile Sources, Committee on; *Nitrates: An Environmental Assessment; Platinum-Group Metals; Response to the Ozone Protection Sections of the Clean Air Act Amendments of 1977: An Interim Report; A Review of the Role of Health Sciences in the Consumer Product Safety Commission; Sulfur Oxides*

Environmental Studies Board, National Research Council Commission on Natural Resources: *see An Assessment of Mercury in the Environment; Kepone/Mirex/Hexachlorocyclopentadiene: An Environmental Assessment; Nitrates: An Environmental Assessment*

Erosion Control in Energy Systems (NMAB-334), Committee on Conservation of Materials in Energy Systems Through the Reduction of Erosion, National Materials Advisory Board, National Research Council Commission on Sociotechnical Systems; in a report to the U.S. Department of Energy, the committee concluded that lack of sufficiently durable materials for constructing new energy-processing equipment is an important limiting factor in planning and developing "advanced energy systems." The committee studied erosion and corrosion problems associated with coal gasification, coal liquefaction, power generation with steam and with high-temperature gas turbines, magnetohydrodynamic generators, transportation of coal slurries, and conversion of geothermal, wind, and solar energy to electricity. The committee urged the "materials science community" to do extensive studies on erosion and corrosion reactions, particularly in the design of ceramics—Mar, 10

Estes, E. Harvey, chairman of Steering Committee, Study to Develop an Integrated Manpower Policy for Primary Care; *see A Manpower Policy for Primary Health Care: Report of a Study*

Evaluation of Research on Surrogates for Humans in Motor Vehicle Crashes, Committee on Evaluation of Research on Surrogates for Humans in Motor Vehicle Crashes, Division of Medical Sciences, National Research Council Assembly of Life Sciences; the committee's study, done at the request of the National Highway Traffic Safety Administration, found no alternatives to the use of cadavers in automobile crash testing. At present only cadavers can aid in defining injury criteria and in designing better anthropomorphic dummies for use in future testing. In an accompanying resolution the committee urged that crash-testing with cadavers always be "conducted under ethical guidelines that preserve the dignity and privacy of the human body"—Sept, 1, 4, 6

Failure Prevention Information Center: *see Erosion Control in Energy Systems*

Federal Preparedness Agency, U.S.: *see Contingency Plans for Chromium Utilization*

First GARP [Global Atmospheric Research Program] Global Experiment: *see* "Global Weather Experiment"; *The Global Weather Experiment—Perspectives on its Implementation and Exploitation*

Five Year Outlook Report; study committee formed at the request of the National Science Foundation to contribute a separate report to the first of the Foundation's "Five-Year Outlook" reports. The study will examine possible new developments in science and technology, the conditions necessary for those developments to occur, and some of their social and economic impacts; other areas of concern will be the state of knowledge in the earth sciences, in the life sciences, and in the study of the structure of matter—Dec, 1

Food and Drug Administration, U.S.: *see Kepone/Mirex/Hexachlorocyclopentadiene: An Environmental Assessment; A Review of the Role of Health Sciences in the Consumer Product Safety Commission*

Food and Nutrition Board, Division of Biological Sciences, National Research Council Assembly of Life Sciences: *see Human Vitamin B_6 Requirements*

food resources: *see Aquaculture in the United States; Human Vitamin B_6 Requirements; Kepone/Mirex/Hexachlorocyclopentadiene: An Environmental Assessment; Nitrates: An Environmental Assessment;* Study on Food Safety and Food-Safety Policy, Committee for; *Wheat in the People's Republic of China*

Ford Foundation: *see CETA [Comprehensive Employment and Training Act]: Assessment and Recommendations;* Child Development Research and Public Policy

Friedman, Herbert, speaker at space-science symposium in February 1978; *see* "20 Years Ago, the Jittery Entry of U.S. Science into Space"

Frye, John C., chairman of the Panel on Geological Site Criteria of the Committee on Radioactive Waste Management, National Research Council Commission on Natural Resources; *see The Geological Criteria for Suitable Sites of High-Level Radioactive Waste Repositories*

Gas Production Opportunities, Committee on, Board on Mineral and Energy Resources, National Research Council Commission on Natural Resources: *see Opportunities for Increasing Natural Gas Production in the Near Term. Volume I: The Tiger Shoal Field*

Geodesy, Committee on, National Research Council Assembly of Mathematical and Physical Sciences: *see Geodesy: Trends and Prospects*

Geodesy: Trends and Prospects, Committee on Geodesy, National Research Council Assembly of Mathematical and Physical Sciences; the committee's study, supported by seven Federal agencies, considered the past, described the present, and proposed areas of activity for the future of geodesy. Among areas in which geodesy can make contributions are more accurate control networks for mapping and land registry, measurement of crustal motion, improved instrumentation in the application of new techniques, and new applications for gravity data. The committee recommended additional funding and improved organization of geodetic activities within Federal agencies—Nov, 1, 2-3

The Geological Criteria for Suitable Sites of High Level Radioactive Waste Repositories, Panel on Geological Site Criteria, Committee on Radioactive Waste Management, National Research Council Commission on Natural Resources; the panel, following several assumptions (including the proposition that deep, underground storage is the only means of isolating radioactive waste), described what criteria should be used in choosing specific sites for permanent storage of radioactive waste. As general principles, the panel specified that any site selection must consider areas that would be stable in terms of geological, hydrological, and geochemical characteristics, but which would be unlikely to attract any future exploration or exploitation—Nov 1, 4-5

Geological Perspectives on Climatic Change, Ad Hoc Committee on Geology and Climate, National Research Council Assembly of Mathematical and Physical Sciences; the committee summarized present knowledge of the geological past to illustrate the full range of climatic variation that has existed. A better understanding of the complex geological processes of the past, the committee said, would yield information useful in achieving "an understanding of the climate-determining processes and periodicities" that could permit better forecasting of future climatic trends—Dec, 14-15

Geological Site Criteria, Panel on, National Research Council Commission on Natural Resources' Committee on Radioactive Waste Management: *see The Geological Criteria for Suitable Sites of High-Level Radioactive Waste Repositories*

Geological Survey, U.S.: *see Technological Innovation and Forces for Change in the Mineral Industry*

Geology and Climate, Ad Hoc Committee on, National Research Council Assembly of Mathematical and Physical Sciences: *see Geological Perspectives on Climatic Change*

Germplasm Resources, Committee on, Division of Biological Sciences, National Research Council Assembly of Life Sciences: *see Conservation of Germplasm Resources: An Imperative*

Global Atmospheric Research Program: *see* "Global Weather Experiment"; *The Global Weather Experiment—Perspectives on its Implementation and Exploitation*

Global Atmospheric Research Program, U.S. Committee for the, National Research Council Assembly of Mathematical and Physical Sciences: *see The Global Weather Experiment—Perspectives on its Implementation and Exploitation*

"Global Weather Experiment," *News Report* account of origins and development of, planning for, and present organization of, the Global Weather Experiment of the Global Atmospheric Research Program—Dec, 1, 6-7, 9-13

The Global Weather Experiment—Perspectives on its Implementation and Exploitation, U.S. Committee for the Global Atmospheric Research Program, National Research Council Assembly of Mathematical and Physical Sciences; excerpts—Dec, 8-9

Gomory, R. E., chairman for a National Research Council study of the National Science Foundation's "Five-Year Outlook"; *see* Five Year Outlook Report

Griffin, Herschel E., chairman of the Committee on Sulfur Oxides, National Research Council Assembly of Life Sciences; *see Sulfur Oxides*

Handler, Joel F., chairman of the Deinstitutionalization Panel; *see* Child Development Research and Public Policy, Committee on

Hanford Wastes, Panel on, Committee on Radioactive Waste Management, National Research Council Commission on Natural Resources: *see Radioactive Wastes at the Hanford Reservation: A Technical Review*

Halocarbons: Environmental Effects of Chlorofluoromethane Release, 1976 report by Committee on the Impacts of Stratospheric Change; cited; *see Response to the Ozone Protection Sections of the Clean Air Act Amendments of 1977: An Interim Report*

Hays, Harry W., chairman of Bureau of Biomedical Sciences (CPSC) Review Committee; *see A Review of the Role of Health Sciences in the Consumer Product Safety Commission*

health: *see Airborne Particles;* "Army Technologists: 29-Year Follow Up for Cause of Death"; *An Assessment of Mercury in the Environment; Carbon Monoxide; Common Processes in Habitual Substance Use: A Research Agenda; Human Vitamin B_6 Requirements; A Manpower Policy for Primary Health Care: Report of a Study;* Odors from Stationary and Mobile Sources, Committee on; *Platinum-Group Metals; Regional*

Emergency Medical Communications Systems; Response to the Ozone Protection Sections of the Clean Air Act Amendments of 1977: An Interim Report; A Review of the Role of Health Sciences in the Consumer Product Safety Commission; A Review of the Use of Ionizing Radiation for the Treatment of Benign Diseases; "Smallpox: Beaten at Last?"; *Strengthening U.S. Programs to Improve Health in Developing Countries;* Study on Food Safety and Food-Safety Policy, Committee for; *Sulfur Oxides*

Health, Education, and Welfare, U.S. Department of: *see Strengthening U.S. Programs to Improve Health in Developing Countries;* Study on Food Safety and Food-Safety Policy, Committee for

Health Manpower and Resources Development, Division of, Institute of Medicine: *see A Manpower Policy for Primary Health Care: Report of a Study*

Henderson, Donald Ainslie: *see* "Smallpox: Beaten at Last?"; awards, National Academy of Sciences

Heyssel, Robert M., chairman of the Committee on Regional Emergency Medical Communications Systems; *see Regional Emergency Medical Communications Systems: Final Report*

Human Resources, National Research Council Commission on: new projects announced: Studies of the Education and Employment of Women in Science and Engineering; Study of Postdoctorals and Doctoral Research Staff in Science and Engineering in the United States—Jan, 3; Planning Study of the Federal Role in Postsecondary Science Education—Jun, 3; Review of Three (National Science Foundation) Studies of School Science—Nov, 3; *see also Science, Engineering, and Humanities Doctorates in the United States: 1977 Profile*

Human Rights, National Academy of Sciences Committee on; appealed in December 1977 to the governments of Czechoslovakia and the Union of Soviet Socialist Republics on behalf of Soviet scientists Anatoliy Borisovich Shcharanskiy and Yuriy F. Orlov, and Czechoslovak scientists Vladimir Lastuvka and Ales Machecek, reported to be victims of harassment and detention. The Academy requested permission to send at least one U.S. legal scholar to be an observer at the expected trial of Shcharanskiy, a computer scientist arrested in March 1977—Mar, 1, 9; in February appealed to other "concerned scientists" to write to the government of Indonesia on behalf of scientists T. W. Kamil, Bursono Wiwoho, and I. Made Sutayasa, and engineer Kamaluddin Singgih, and to the government of Mali on behalf of mathematician Ibrahima Ly—all believed to be victims of political repression—May, 5, 7; announced its decision—based on a report from its delegation which visited Argentina and Uruguay—not to endorse a proposed boycott of the Twelfth International Cancer Congress, planned for October in Buenos Aires. At the same time the committee called upon other scientists to join with it in petitioning the Argentine government on behalf of two Argentine scientists imprisoned without trial, Claudio Santiago Bermann and Elena Sevilla, and made a similar appeal on behalf of Uruguayan José Luís Massera. At the April annual meeting of the National Academy of Sciences, a resolution by members present expressed "dismay at the lack of Soviet response" to the Academy's queries and protests "on behalf of Soviet scientists denied their human rights"—Jul, 5; issued statement on August 21 decrying denial of human rights to Soviet scientists Yuriy Orlov, Anatoliy Shcharanskiy, and Sergey Kovalev; quoted —Oct, 5

Human Rights Clearinghouse of the American Association for the Advancement of Science: *see* Human Rights, National Academy of Sciences Committee on

Human Vitamin B_6 Requirements, proceedings of workshop, Committee on Dietary Allowances, Food and Nutrition Board, Division of Biological Sciences, National Research Council Assembly of Life Sciences; excerpts—Apr, 5

Impacts of Stratospheric Change, Committee on, National Research Council Assembly of Mathematical and Physical Sciences: *see Response to the Ozone Protection Sections of the Clean Air Act Amendments of 1977: An Interim Report*

Implementation Requirements of Environmental Standards, Panel on, Committee on Radioactive Waste Management, National Research Council Commission on Natural Resources; the panel is studying requirements and methods for verifying the safe management and long-term (up to 1,000 years) disposal of high-level and transuranic radioactive wastes; study requested by U.S. Environmental Protection Agency—Feb, 7

Innovation and Technology Transfer in the Maritime Industry, Committee on, Maritime Transportation Research Board, National Research Council Commission on Sociotechnical Systems: *see Case Studies in Maritime Innovation*

Institute of Medicine, National Academy of Sciences: new projects announced: Incorporation of Knowledge about Human Aging in Medical Education; Study on Appropriate Use of Barbiturates: Options for Medical Practice—Feb, 3; Conference on Prevention of Disease and Promotion of Health; Study of Health Problems and Programs in Egypt; Study on Food Safety and Food-Safety Policy (Evaluation of Safety of Saccharin and Non-Nutritive Sweeteners)—May, 3; Report to the Surgeon General of the United States on Disease Prevention and Health Promotion —Nov, 3; *see also A Manpower Policy for Primary Health Care: Report of a Study; Strengthening U.S. Programs to Improve Health in Developing Countries;* Study on Food Safety and Food-Safety Policy, Committee for

Interior, U.S. Department of: *see Safety of Dams*

international affairs: *see Contingency Plans for Chromium Utilization;* "Global Weather Experiment"; Human Rights, National Academy of Sciences Committee on; *Methane Generation from Human, Animal, and Agricultural Wastes; Workshop on Solar Energy for the Villages of Tanzania; Review of U.S.-U.S.S.R. Interacademy Exchanges and Relations; Strengthening U.S. Programs to Improve Health in Developing Countries; U.S. Science and Technology for Development; Wheat in the People's Republic of China*

International Commission on Radiological Protection: *see Radioactive Wastes at the Hanford Reservation: A Technical Review*

International Council of Scientific Unions: *see* "Global Weather Experiment"; *The Global Weather Experiment—Perspectives on its Implementation and Exploitation*

International Health, Committee on, Division of International Health, Institute of Medicine: *see Strengthening U.S. Programs to Improve Health in Developing Countries*

International Health, Division of, Institute of Medicine: *see Strengthening U.S. Programs to Improve Health in Developing Countries*

International Relations, National Research Council Commission on: new projects announced: Enhancing Science and Technology Capabilities of LDCs [Less-Developed Countries]; Study to Assist the U.S. Coordinator for United Nations Conference on Science and Technology for Development in Preparation of the United States National Paper for the Conference—Jan, 3; Applied Science and Technology Research in Egypt—Apr, 3; Joint Workshop on Agricultural Research Management with the National Office of Scientific and Technical Research, Cameroon; A Selective Review of China's Science and Technology—Jun, 3; National Academy of Sciences participation in National Workshop on Food and Nutrition in Indonesia—Aug, 2; Workshop on Technology for Rural Development, held in cooperation with the National Science Development Board, Republic of the Philippines—Oct, 3; Discussion Seminar on Regional Science and Technology Development in the Middle East—Dec, 3; *see also Methane Generation from Human, Animal, and Agricultural Wastes; Workshop on Solar Energy for the Villages of Tanzania; Review of U.S.-U.S.S.R. Interacademy Exchanges and Relations; Wheat in the People's Republic of China*

International Scientific Exchange, Board on, National Research Council Commission on International Relations: *see Review of U.S.-U.S.S.R. Interacademy Exchanges and Relations*

Ionizing Radiation for the Treatment of Benign Diseases, Committee to Review the Use of, Division of Medical Sciences, National Research Council Assembly of Life Sciences: *see A Review of the Use of Ionizing Radiation for the Treatment of Benign Diseases*

Jablon, Seymour, director of Medical Follow-up Agency; *see* "Army Technologists: 29-Year Follow Up for Cause of Death"

Juvenile Justice Amendments of 1977: *see* Child Development Research and Public Policy

Juvenile Justice and Delinquency Prevention Act of 1974: *see* Child Development Research and Public Policy

Kamil, T. W.: *see* Human Rights, National Academy of Sciences Committee on
Kaula, William M., chairman of National Research Council Assembly of Mathematical and Physical Sciences' Committee on Geodesy; *see Geodesy: Trends and Prospects*
Kaysen, Carl, chairman of panel of Commission on International Relations; *see Review of U.S.-U.S.S.R. Interacademy Exchanges and Relations*
Kennedy, John F.; quoted—"Global Weather Experiment"—Dec, 6, 7
Kepone/Mirex/Hexachlorocyclopentadiene: An Environmental Assessment (Scientific and Technical Assessments of Environmental Pollutants), Panel on Kepone/Mirex/Hexachlorocyclopentadiene, Coordinating Committee for Scientific and Technical Assessments of Environmental Pollutants, Environmental Studies Board, National Research Council Commission on Natural Resources; panel evaluated two extensive summaries prepared by contractors to the Environmental Protection Agency on the environmental effects and potential health hazards of the pesticides Kepone (chlordecone) and mirex, and of the compound hexachlorocyclopentadiene (often called hex), from which Kepone, mirex, and other pesticides are derived. The panel noted that Kepone and mirex behave similarly in the environment—degrading slowly, concentrating in biological tissue, and producing both acute and chronic effects more readily in some species than in others. Laboratory studies have indicated both may be potential human carcinogens. Beyond these generalizations, the panel found an extreme paucity of data on the distribution and long-term effects of these chemicals, particularly in the case of hex, and a "poor understanding" of overall effects of pesticides on ecosystems—Aug, 1, 4-5
Kepone/Mirex/Hexachlorocyclopentadiene, Panel on, Coordinating Committee for Scientific and Technical Assessments of Environmental Pollutants, Environmental Studies Board, National Research Council Commission on Natural Resources: *see Kepone/Mirex/Hexachlorocyclopentadiene: An Environmental Assessment*
Keyfitz, Nathan, chairman; *see* Decennial Census Plans, Panel on, Committee on National Statistics
Kovalev, Sergey: *see* Human Rights, National Academy of Sciences Committee on
Krauskopf, Konrad B., chairman of Panel on Hanford Wastes; *see Radioactive Wastes at the Hanford Reservation: A Technical Review*

Labor, U.S. Department of: *see CETA [Comprehensive Employment and Training Act]: Assessment and Recommendations*
Laboratory Animal Resources, National Research Council Institute of: *see* Animal Models for Research on Aging, Committee on
Lastuvka, Vladimir: *see* Human Rights, National Academy of Sciences Committee on
Law Enforcement Assistance Administration: *see* Child Development Research and Public Policy; *Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates*
Life Sciences, National Research Council Assembly of; new projects announced: Committee on Dietary Guidelines Data; Odors from Stationary and Mobile Sources—Apr, 3; Effect of Changing Food Consumption Habits on Nutrient Intake—May, 3; Committee on Research Priorities in Tropical Biology; Determinants of the Socioeconomic Development of Offspring of White Male Twins—Jun, 3; Committee on Evaluation of Research on Human Surrogates in Motor Vehicle Crashes—Jul, 10; Committee on Animal Models for Research on Aging—Sept, 2; *see also Airborne Particles;* "Army Technologists: 29-Year Follow Up for Cause of Death"; *Carbon Monoxide; Conservation of Germplasm Resources: An Imperative; Evaluation of Research on Surrogates for Humans in Motor Vehicle Crashes; Human Vitamin B_6 Requirements;* Odors from Stationary and Mobile Sources, Committee on; *Platinum-Group Metals; Regional Emergency Medical Communications Systems;* Research Priorities in Tropical Biology, Committee on; *A Review of the Role of Health Sciences in the Consumer Product Safety Commission; A Review of the Use of Ionizing Radiation for the Treatment of Benign Diseases;* Study on Food Safety and Food-Safety Policy, Committee for; *Sulfur Oxides*
Lindzey, Gardner, chairman of Committee on Substance Abuse and Habitual Behavior; *see Common Processes in Habitual Substance Use*
Liquefaction of Coal, Ad Hoc Panel on, Committee on Processing and Utilization of Fossil Fuels, National Research Council Commission on Sociotechnical Systems: *see Assessment of Low- and Intermediate-Btu Gasification of Coal; Assessment of Technology for the Liquefaction of Coal; Assessment of Technology for the Liquefaction of Coal: Summary*
Liquefied Natural Gas, Panel on, Committee on Maritime Hazardous Materials, National Materials Advisory Board, National Research Council Commission on Sociotechnical Systems; panel organized to study hazards in transport of liquefied natural gas by ship for the U.S. Coast Guard—Jun, 1
Livingston, Robert J., chairman of Panel on Kepone/Mirex/Hexachlorocyclopentadiene; *see Kepone/Mirex/Hexachlorocyclopentadiene*
Low-Btu Gasification of Coal, Ad Hoc Panel on, Committee on Processing and Utilization of Fossil Fuels, National Research Council Commission on Sociotechnical Systems: *see Assessment of Low- and Intermediate-Btu Gasification of Coal; Assessment of Technology for the Liquefaction of Coal; Assessment of Technology of the Liquefaction of Coal: Summary*
Ly, Ibrahima: *see* Human Rights, National Academy of Sciences Committee on
Lynn, Laurence E., Jr., chairman; *see* Child Development Research and Public Policy, Committee on

MacMillan, Douglas C., cochairman (with Walter G. Berl); *see* Liquefied Natural Gas, Panel on
Machacek, Ales: *see* Human Rights, National Academy of Sciences Committee on
Management and Budget, Office of: *see Strengthening U.S. Programs to Improve Health in Developing Countries*
Mankin, Charles J., chairman of Committee on Gas Production Opportunities; *see Opportunities for Increasing Natural Gas Production in the Near Term*
Manpower Policy for Primary Health Care: Report of a Study, Steering Committee, Study to Develop an Integrated Manpower Policy for Primary Care, Division of Health Manpower and Resources Development, Institute of Medicine; committee studied manpower requirements for primary health care—defined by the committee's checklist for evaluating the health practice unit providing people their first and principal source of health care—and found no need for increases in medical school admissions nor for emphasis on one type of health practice unit, provided some changes are made to alter present medical career trends. To attract more practitioners into primary care and fewer into specialized fields, the committee urged shifts in medical school admissions and changes in medical-payment formulas by government and other medical insurance agencies—Jul, 1, 6-7
Maritime Hazardous Materials, Committee on, National Materials Advisory Board, National Research Council Commission on Sociotechnical Systems: *see* Liquefied Natural Gas, Panel on
Maritime Transportation Research Board, National Research Council Commission on Sociotechnical Systems: *see Case Studies in Maritime Innovation*
Massera, José Luís: *see* Human Rights, National Academy of Sciences Committee on
Mathematical and Physical Sciences, National Research Council Assembly of; new projects announced: Continental Tectonics Panel; Geophysical Predictions Panel; Impact of Technology on Geophysics Panel; Mineral Resources Panel—Apr, 3; Cooperation in Physics between the National Academy of Sciences of the United States of America and the Academy of Sciences of the Union of Soviet Socialist Republics under the Auspices of the US-USSR Joint Commission on Scientific and Technical Cooperation—May, 3; Panel on the Implications of Future Space Systems for the U.S. Navy—Nov, 3; *see also Geodesy: Trends and Prospects; Geological Perspectives on Climatic Change; The Global Weather Experiment—Perspectives on its Implementation and Exploitation; National Needs for Critically Evaluated Physical and Chemical Data; Post-Viking Biological Investigations of Mars; Recommendations on Quarantine Policy; Response to the Ozone Protection Sections of the Clean Air Act Amendments of 1977: An Interim Report*
Materials Processing in Space, Committee on Scientific and Technological Aspects of Materials Processing in Space, Space Applications Board, National Research Council Assembly of Engineering; the

committee found few instances in which a low-gravity environment would be advantageous for materials processing; even in such instances, the committee said, problems proposed for investigation in space should have a "sound base in terrestrial science or technology"—Sept, 7

Mazur, Peter, chairman of Committee on Planetary Biology, National Research Council Assembly of Mathematical and Physical Sciences Space Science Board; *see Recommendations on Quarantine Policy*

Medical and Biologic Effects of Environmental Pollutants, Committee on, Division of Medical Sciences, National Research Council Assembly of Life Sciences: *see Airborne Particles; Carbon Monoxide; Platinum-Group Metals*

Medical Follow-up Agency, Division of Medical Sciences, National Research Council Assembly of Life Sciences: *see* "Army Technologists: 29-Year Follow Up for Cause of Death"

Medical Sciences, Division of, National Research Council Assembly of Life Sciences: *see Airborne Particles;* "Army Technologists: 29-Year Follow Up for Cause of Death"; *Carbon Monoxide; Evaluation of Research on Surrogates for Humans in Motor Vehicle Crashes; Platinum-Group Metals; Regional Emergency Medical Communications Systems; A Review of the Use of Ionizing Radiation for the Treatment of Benign Diseases*

Mercury, Panel on, Coordinating Committee for Scientific and Technical Assessments of Environmental Pollutants, Environmental Studies Board, National Research Council Commission on Natural Resources: *see An Assessment of Mercury in the Environment*

Methane Generation from Human, Animal, and Agricultural Wastes, Panel on Methane Generation from Human, Animal, and Agricultural Wastes, Advisory Committee on Technology Innovation, Board on Science and Technology for International Development, National Research Council Commission on International Relations; *Workshop on Solar Energy for the Villages of Tanzania,* Dar es Salaam, Tanzania, August 11-19, 1977, sponsored by United Republic of Tanzania National Scientific Research Council, and by Board on Science and Technology for International Development, National Research Council Commission on International Relations; these reports indicate that many so-called unconventional energy technologies are in use already, meeting the needs of poor, rural villages for cheap, locally available fuel which can be used on a small scale for domestic purposes, street lighting and irrigation pumping. The report on methane generation, which includes a guide to the design of this type of system, assesses it as satisfying these criteria, and simultaneously taking care of waste disposal in a safe, practical way, with the added benefit of producing a residue that can be used as fertilizer. The workshop in Tanzania considered energy conversion by small hydroelectric units, by fermenting wastes, by wind, and by photovoltaic cells, as well as solar stills, solar crop dryers, and solar coolers, and judged most of these technologies economically and technically feasible—Aug, 1-3

Methane Generation from Human, Animal, and Agricultural Wastes, Panel on, Advisory Committee on Technology Innovation, Board on Science and Technology for International Development, National Research Council Commission on International Relations: *see Methane Generation from Human, Animal, and Agricultural Wastes; Workshop on Solar Energy for the Villages of Tanzania*

Microwave Remote Sensing from Space for Earth Resource Surveys, Committee on Remote Sensing Programs for Earth Resource Surveys, National Research Council Commission on Natural Resources; at the request of the National Aeronautics and Space Administration (NASA), the committee reviewed the potential uses of microwave sensors to supplement or replace visible-light and infrared detectors for earth surveys from space, and evaluated their strengths and weaknesses under varying atmospheric conditions. The committee found that active microwave sensors are suitable for some purposes such as distance-measuring. The committee endorsed NASA's passive-imaging microwave development program as potentially useful in soil moisture measurements and crop forecasting—Mar, 8-9

Miller, Robert W., National Cancer Institute; *see* "Army Technologists: 29-Year Follow Up for Cause of Death"

Mineral and Energy Resources, Board on, National Research Council Commission on Natural Resources: *see Opportunities for Increasing Natural Gas Production in the Near Term; Technological Innovation and Forces for Change in the Mineral Industry*

Mineral Technology, Committee on, Board on Mineral and Energy Resources, National Research Council Commission on Natural Resources: *see Technological Innovation and Forces for Change in the Mineral Industry*

Minorities in Engineering, Committee on, National Research Council Assembly of Engineering: *see Retention of Minority Students in Engineering*

Motor Vehicle Crashes, National Research Council Assembly of Life Sciences' Committee on: *see Evaluation of Research on Surrogates for Humans in Motor Vehicle Crashes*

Mwombela, Peter, chairman of first joint workshop held by (U.S.) National Research Council Board on Science and Technology for International Development and the Tanzania National Scientific Research Council; *see Methane Generation from Human, Animal, and Agricultural Wastes; Workshop on Solar Energy for the Villages of Tanzania*

National Academy of Engineering: Courtland D. Perkins, elected president in 1975 to fill vacancy left by the resignation of Robert C. Seamans, Jr., was elected to a full, four-year term as president beginning July 1—Jun, 1; 100 U.S. engineers were elected to the Academy and 19 engineers were named foreign associates—Jun, 1 (*lists of names and citations; see also* elections, National Academy of Engineering); *see also* deaths, of members of National Academy of Engineering

National Academy of Sciences: to hold space-science symposium on February 1, 1978, to commemorate the 20th anniversary of the launch of *Explorer I,* the first U.S. satellite to orbit the earth; symposium speakers to include James A. Van Allen, University of Iowa; Herbert Friedman, Naval Research Laboratory; John R. Pierce, California Institute of Technology—Feb, 1; 60 U.S. scientists were elected to membership and 6 were named as foreign associates at annual meeting in April; 9 persons were honored with awards—Jul, 2-3, 9 (*lists of names and citations; see also* awards, National Academy of Sciences, *and* elections, National Academy of Sciences); *see also* deaths, of members and foreign associates of the National Academy of Sciences; Human Rights, National Academy of Sciences Committee on; "20 Years Ago, the Jittery Entry of U.S. Science into Space"

National Aeronautics and Space Administration: *see Contingency Plans for Chromium Utilization;* "Global Weather Experiment"; *Materials Processing in Space; Microwave Remote Sensing from Space for Earth Resource Surveys; Recommendations on Quarantine Policy;* Review of the Space Shuttle Main Engine Development Program, Ad Hoc Committee for

National Bureau of Standards: *see Erosion Control in Energy Systems*

National Council on Radiation Protection and Measurements: *see Radioactive Wastes at the Hanford Reservation*

National Highway Traffic Safety Administration: *see Evaluation of Research on Surrogates for Humans in Motor Vehicle Crashes*

National Institute of Law Enforcement and Criminal Justice: *see Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates*

National Institute on Aging: *see* Animal Models for Research on Aging, Committee on

National Institute on Drug Abuse: *see Common Processes in Habitual Substance Use: A Research Agenda*

National Institutes of Health: *see Strengthening U.S. Programs to Improve Health in Developing Countries*

National Materials Advisory Board, National Research Council Commission on Sociotechnical Systems: *see Contingency Plans for Chromium Utilization; Erosion Control in Energy Systems;* Liquefied Natural Gas, Panel on; *Report of the Committee on the Steel Industry Study for the Office of Science and Technology Policy*

National Needs for Critically Evaluated Physical and Chemical Data, Committee on Data Needs, Numerical Data Advisory Board, National Research Council Assembly of Mathematical and Physical Sciences; the committee found that the increasing rate of scientific publication exceeds the capabilities of data-analysis centers to compile and digest results of research on properties of materials. In

its report to the National Science Foundation the committee recommended that Federal agencies try to estimate their probable specific data needs for the future and provide increased funds to eliminate current backlogs and keep future data-evaluation activities up-to-date—Sept, 1, 2-3

National Oceanic and Atmospheric Administration: *see Aquaculture in the United States;* "Global Weather Experiment"; *The Global Weather Experiment—Perspectives on its Implementation and Exploitation*

National Research Council: new projects announced—*see* Behavioral and Social Sciences, National Research Council Assembly of; Engineering, National Research Council Assembly of; International Relations, National Research Council Commission on; Life Sciences, National Research Council Assembly of; Mathematical and Physical Sciences, National Research Council Assembly of; Natural Resources, National Research Council Commission on; Sociotechnical Systems, National Research Council Commission on

National Science and Technology Policy Organization, and Priorities Act of 1976 (Public Law 94-282): *see* Five Year Outlook Report

National Science Foundation: *see* Five Year Outlook Report; "Global Weather Experiment"; *National Needs for Critically Evaluated Physical and Chemical Data;* Research Priorities in Tropical Biology, Committee on

National Statistics, Committee on, National Research Council Assembly of Behavioral and Social Sciences: *see* Decennial Census Plans, Panel on

natural resources: *see Aquaculture in the United States; Assessment of Low- and Intermediate-Btu Gasification of Coal; Assessment of Technology for the Liquefaction of Coal; Assessment of Technology for the Liquefaction of Coal: Summary; Conservation of Germplasm Resources: An Imperative; Contingency Plans for Chromium Utilization; The Geological Criteria for Suitable Sites of High-Level Radioactive Waste Repositories;* Liquefied Natural Gas, Panel on; *Opportunities for Increasing Natural Gas Production in the Near Term; Radioactive Wastes at the Hanford Reservation: A Technical Review;* Research Priorities in Tropical Biology, Committee on; *Safety of Dams; Sulfur Oxides;* Surface Mining and Reclamation, Committee on; *Technological Innovation and Forces for Change in the Mineral Industry*

Natural Resources, National Research Council Commission on: new projects announced: Committee on the Assessment of Polychlorinated Biphenyls in the Environment, Environmental Studies Board; Committee on Prototype Explicit Analyses for Pesticides, Environmental Studies Board—Jan, 3; Helium Study Committee, Board of Mineral and Energy Resources; Study of the Criteria Needed to Determine the Suitability of Sites for Geological Storage or Disposal of High-Level Radioactive Waste; Study of the Requirements for the Verification of the Implementation of Environmental Standards for the Management and Disposal of High-Level, Long-Lived Radioactive Waste—Feb, 3; Study on Urban Waterfront Lands—Apr, 3; International workshop to evaluate the "Mussel Watch" approach to marine-pollution monitoring; Lead in the Human Environment; Surface Mining and Reclamation for Minerals other than Coal; Review of the Criteria for Site Suitability, Design, Construction, and Operation of the Proposed Waste Isolation Pilot Plant—Aug, 2; Study of the Plans for the Management of the Radioactive Wastes at the Department of Energy Savannah River Plant—Oct, 3; Feeding Underutilized Feedstuffs to Animals; Influence of Environmental Stress on Nutrient Requirements—Nov, 3; *see also Aquaculture in the United States; An Assessment of Mercury in the Environment; The Geological Criteria for Suitable Sites of High-Level Radioactive Waste Repositories*; Implementation Requirements of Environmental Standards, Panel on; *Kepone/Mirex/Hexachlorocyclopentadiene: An Environmental Assessment; Microwave Remote Sensing from Space for Earth Resource Surveys; Nitrates: An Environmental Assessment; Opportunities for Increasing Natural Gas Production in the Near Term; Radioactive Wastes at the Hanford Reservation: A Technical Review;* Surface Mining and Reclamation, Committee on; *Technological Innovation and Forces for Change in the Mineral Industry*

1970 Air Quality Criteria for Carbon Monoxide: *see Carbon Monoxide*

1970 Air Quality Criteria for Sulfur Oxides: *see Sulfur Oxides*

Nitrates: An Environmental Assessment (Scientific and Technical Assessments of Environmental Pollutants), Panel on Nitrates, Coordinating Committee for Scientific and Technical Assessments of Environmental Pollutants, Environmental Studies Board, National Research Council Commission on Natural Resources; the panel's study, though primarily concerned with problems directly involving nitrates, examined several environmental problems related to the "nitrogen cycle," especially atmospheric effects of increased nitrogen fixation as a result of intensive fertilization, health hazards from nitrates in food and drinking water, and other problems. Possible depletion of atmospheric ozone from nitrogenous fertilizers is "highly uncertain," and the committee urged "no immediate corrective action." Because of the apparent dangers in bacterial conversion of nitrates to nitrites, and their subsequent conversion to N-nitroso compounds, the committee recommended that "every reasonable effort" be made to diminish nitrates in food and water. Other portions of the committee's report to the Environmental Protection Agency stressed that much remains to be learned about the "interconnection" of nitrate-related problems in the environment—Oct, 1, 2-3

Nitrates, Panel on, Environmental Studies Board Coordinating Committee for Scientific and Technical Assessments of Environmental Pollutants, National Research Council Commission on Natural Resources: *see Nitrates: An Environmental Assessment*

Numerical Data Advisory Board, National Research Council Assembly of Mathematical and Physical Sciences: *see National Needs for Critically Evaluated Physical and Chemical Data*

Nutrient Requirements of Dairy Cattle, Fifth Revised Edition, 1978 (Nutrient Requirements of Domestic Animals Number 3), Subcommittee on Dairy Cattle Nutrition, Committee on Animal Nutrition, Board on Agriculture and Renewable Resources, National Research Council Commission on Natural Resources; excerpts—Sept, 3

Occupational Safety and Health Administration: *see Platinum-Group Metals; A Review of the Role of Health Sciences in the Consumer Product Safety Commission*

oceans: *see Aquaculture in the United States; Case Studies in Maritime Innovation; Geological Perspectives on Climatic Change;* "Global Weather Experiment"; Liquefied Natural Gas, Panel on

Odishaw, Hugh, quoted; *see* "20 Years Ago, the Jittery Entry of U.S. Science into Space"

Odors from Stationary and Mobile Sources, Committee on, newly formed within Board on Toxicology and Environmental Health Hazards, National Research Council Assembly of Life Sciences, to study detection, measurement, and effects of odor-producing substances for the U.S. Environmental Protection Agency—Apr, 1

Ommaya, Ayub K., chairman of the Committee on Evaluation of Research on Surrogates for Humans in Motor Vehicle Crashes; *see Evaluation of Research on Surrogates for Humans in Motor Vehicle Crashes*

Opportunities for Increasing Natural Gas Production in the Near Term. Volume I: The Tiger Shoal Field, Interim Report to the U.S. Department of the Interior, Committee on Gas Production Opportunities, Board on Mineral and Energy Resources, National Research Council Commission on Natural Resources; excerpts—Jan, 9

Orlov, Yuriy: *see* Human Rights, National Academy of Sciences Committee on

Parker, Earl R., chairman of Committee on Contingency Plans for Chromium Utilization; *see Contingency Plans for Chromium Utilization*

People's Republic of China: *see Wheat in the People's Republic of China*

Pierce, John R., speaker at space-science symposium in February 1978; *see* National Academy of Sciences; "20 Years Ago, the Jittery Entry of U.S. Science into Space"

Planetary Biology and Chemical Evolution, Committee on, Space Science Board, National Research Council Assembly of Mathematical and Physical Sciences: *see Post-Viking Biological Investigations of*

Mars; Recommendations on Quarantine Policy

Platinum-Group Metals (Medical and Biologic Effects of Environmental Pollutants), Subcommittee on Platinum-Group Metals, Committee on Medical and Biologic Effects of Environmental Pollutants, Division of Medical Sciences, National Research Council Assembly of Life Sciences; excerpts—Feb, 5

Post-Viking Biological Investigations of Mars, Planetary Biology and Chemical Evolution, Committee on, Space Science Board, National Research Council Assembly of Mathematical and Physical Sciences; excerpt—Jan, 5

Processing and Utilization of Fossil Fuels, Committee on, National Research Council Commission on Sociotechnical Systems: *see Assessment of Low- and Intermediate-Btu Gasification of Coal; Assessment of Technology for the Liquefaction of Coal; Assessment of Technology for the Liquefaction of Coal; Summary*

Public Health Service, U.S.: *see* "Army Technologists: 29-Year Follow Up for Cause of Death"

Radioactive Waste Management, Committee on, National Research Council Commission on Natural Resources: *see The Geological Criteria for Suitable Sites of High-Level Radioactive Waste Repositories;* Implementation Requirements of Environmental Standards, Panel on; *Radioactive Wastes at the Hanford Reservation: A Technical Review*

Radioactive Wastes at the Hanford Reservation: A Technical Review, Panel on Hanford Wastes, Committee on Radioactive Waste Management, National Research Council Commission on Natural Resources; panel's review of waste disposal from the military production of plutonium since 1944 at the Hanford Reservation was requested by the Energy Research and Development Administration and the Council for Environmental Quality. While the existing system of shallow tank containment poses no immediate dangers, according to the panel, it does require constant monitoring and is susceptible to damage by natural traumas. The panel stressed the urgent need for permanent disposal of high-level radioactive wastes, and after considering various alternatives, strongly recommended conversion to "chemically stable low-leach solids" and deep burial on the Hanford Reservation or within the Rattlesnake Hills nearby. Toward this end the panel recommended research on acceptable solids for burial and intensified geologic and hydrologic study of possible burial sites—Mar, 1, 4-5

Raven, Peter H., chairman; *see* Research Priorities in Tropical Biology, Committee on

Recommendation on Quarantine Policy for Mars, Jupiter, Saturn, Uranus, Neptune, and Titan, Committee on Planetary Biology and Chemical Evolution, Space Science Board, National Research Council Assembly of Mathematical and Physical Sciences; the committee recommended that the National Aeronautics and Space Administration, sponsor of the study, revise downward its current quarantine-policy estimates of the likelihood that Earth organisms could survive on other planets. There are problems in assigning numerical probabilities to "quantitatively unknown phenomena," the committee said, but knowledge gained in recent years from space exploration indicates the limited probability that other planets might be contaminated by microorganisms from Earth, However, the committee recommended also increased research to find microorganisms that might be able to survive under conditions thought to exist on other planets—Oct, 1, 4-5

Recommended Dietary Allowances, National Academy of Sciences, 1974; cited; *see Human Vitamin B_6 Requirements*

Regional Emergency Medical Communications Systems, Committee on, Division of Medical Sciences, National Research Council Assembly of Life Sciences: *see Regional Emergency Medical Communications Systems*

Regional Emergency Medical Communications Systems: Final Report, Committee on Regional Emergency Medical Communications Systems, National Research Council Assembly of Life Sciences Division of Medical Sciences; committee examined 44 grant-funded emergency-medical-service systems in a program sponsored by the Robert Wood Johnson Foundation; though morbidity and mortality statistics for several years will be needed to determine whether or to what extent emergency communications services can improve the delivery of medical care, the committee learned several lessons from the pilot study. Technological achievements ranging from local adoption of the 911 emergency telephone number to radio transmission of electrocardiograms may help save lives, but acceptance of them often rests on "social, political, educational, and economic" attitudes—Oct, 6-7

Remote Sensing Programs for Earth Resource Surveys, Committee on, National Research Council Commission on Natural Resources: *see Microwave Remote Sensing from Space for Earth Resource Surveys*

Report of the Committee on the Steel Industry Study for the Office of Science and Technology Policy, Committee on the Steel Industry Study for the Office of Science and Technology Policy, National Materials Advisory Board, National Research Council Commission on Sociotechnical Systems; excerpt—Nov, 5

Research on Deterrent and Incapacitative Effects, Panel on, Committee on Research on Law Enforcement and Criminal Justice, National Research Council Assembly of Behavioral and Social Sciences: *see Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates*

Research on Law Enforcement and Criminal Justice, Committee on, National Research Council Assembly of Behavioral and Social Sciences: *see Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates*

Research Priorities in Tropical Biology, Committee on, Division of Biological Sciences, National Research Council Assembly of Life Sciences; new committee formed to study the rates of destruction of tropical forests and to consider needs for research on little-understood plant and animal communities in the forests—Jun, 1

Response to the Ozone Protection Sections of the Clean Air Act Amendments of 1977: An Interim Report, Committee on the Impacts of Stratospheric Change, National Research Council Assembly of Mathematical and Physical Sciences; in an update of previous estimates, the committee reported "major upheavals" and new uncertainties in the understanding of atmospheric chemistry in the last two years. Consequently, current estimates of the amount of stratospheric ozone destroyed by release of chlorofluoromethanes appear to be about double the 1976 estimates, while nitrogen oxides released to the atmosphere from engine exhaust of high-altitude aircraft appear to be less important in depletion of stratospheric ozone than previously anticipated—Apr, 1, 4-5

Retention of Minority Students in Engineering, Retention Task Force, Committee on Minorities in Engineering, National Research Council Assembly of Engineering; excerpts—May, 3

A Review of the Role of Health Sciences in the Consumer Product Safety Commission, Bureau of Biomedical Sciences (CPSC) Review Committee, Committee on Toxicology, National Research Council Assembly of Life Sciences; the committee's report is critical of the commission's reliance on computer data bases for its investigative information, and of its lack of attention to the problems of chronic, as well as acute, exposure to potentially hazardous substances. Questioning the adequacy of the scientific base upon which regulatory decisions are made, the committee strongly urges strengthening and expanding epidemiological studies. Also recommended are the recruitment of additional scientific talent for the CPSC, and the possible creation of a high-level scientific pool for hazard assessment which could serve the CPSC and other U.S. Government agencies with similar regulatory concerns—Apr, 1-3

Review of the Space Shuttle Main Engine Development Program, Ad Hoc Committee for, National Research Council Assembly of Engineering; committee began study in January to assess problems connected with the main engine system for the U.S. Space Shuttle and to advise the National Aeronautics and Space Administration, at the request of the U.S. Senate Subcommittee on Science, Technology and Space—Apr, 1, 7

A Review of the Use of Ionizing Radiation for the Treatment of Benign Diseases. Volume I. (HEW Publication (FDA) 78-8043), Committee to Review the Use of Ionizing Radiation for the Treatment of Benign Diseases, Division of Medical Sciences, National Research Council Assembly of Life Sciences; the committee noted that although use of ionizing radiation in the treatment of benign diseases has decreased as other methods of treatment have become available, it is still used for certain medical problems,

particularly in dermatology. ". . . The potential risk of treatment with any form of ionizing radiation of benign, non-life threatening, disease must be recognized," the committee asserted in its report to the U.S. Bureau of Radiological Health. The committee established estimates of the risks of cancer from current uses of ionizing radiation, and recommended laboratory and epidemiologic studies of the effects of ionizing radiation at common doses—Feb, 1-3

Review of U.S.-U.S.S.R. Interacademy Exchanges and Relations, Board on International Scientific Exchange, National Research Council Commission on International Relations; excerpt—Jul, 4-5

Robbins, Frederic C., chairman; *see* Study on Food Safety and Food-Safety Policy, Committee on

Robert Wood Johnson Foundation: *see A Manpower Policy for Primary Health Care: Report of a Study; Regional Emergency Medical Communications Systems*

Rutledge, Philip J., chairman of the Committee on Evaluation of Employment and Training Programs; *see CETA [Comprehensive Employment and Training Act]: Assessment and Recommendations*

Saccharin Study and Labeling Act (Public Law 95-203): *see* Study on Food Safety and Food-Safety Policy, Committee for

Safety of Dams: A Review of the Program of the U.S. Bureau of Reclamation for the Safety of Existing Dams, Committee on the Safety of Dams, National Research Council Assembly of Engineering; in response to a request from the Secretary of the Interior, the committee reviewed the Bureau of Reclamation's dam-safety practices in existing, operational dams, and found the Bureau's practices generally adequate but in need of improvement. Among the committee's recommended changes in the Bureau's procedures: consolidating the Bureau's various safety programs for dams and reservoirs into one office; increasing funds and manpower for landslide surveillance; examination of high-risk dams, emergency preparedness, and geologic, seismologic and hydrologic data-gathering; and installing instruments to monitor the behavior of dam structures at all major dams—Jan, 8-9

Scholarly Communication with the People's Republic of China, Committee on, National Research Council Commission on International Relations: *see Wheat in the People's Republic of China*

Science and Technology for International Development, Board on, National Research Council Commission on International Relations: *see Methane Generation from Human, Animal, and Agricultural Wastes; Workshop on Solar Energy for the Villages of Tanzania*

Science, Engineering, and Humanities Doctorates in the United States: 1977 Profile, Comprehensive Survey of Doctorate Recipients, National Research Council Commission on Human Resources; a February 1977 survey of a 21-percent sample of individuals in the U.S. who have earned doctorates since 1934 indicated low unemployment: an estimated 1.2 percent of science and engineering doctorate holders out of work, 2.9 percent in the humanities. The commission's analysis also found that within both science and engineering, and especially in the humanities, unemployment was higher in some specialties than in others; that women reported higher unemployment and lower median salaries than men in all fields; and that many of those surveyed work outside their fields, particularly those with humanities degrees—Jul, 8

Scientific and Technical Assessments of Environmental Pollutants, Coordinating Committee for, Environmental Studies Board, National Research Council Commission on Natural Resources: *see An Assessment of Mercury in the Environment; Kepone/Mirex/Hexachlorocyclopentadiene; Nitrates: An Environmental Assessment*

Scientific and Technological Aspects of Materials Processing in Space, Space Applications Board Committee on, National Research Council Assembly of Engineering: *see Materials Processing in Space*

"A Search for Late Radiation Effects among Men Who Served as X-Ray Technologists in the U.S. Army During World War II," Miller and Jablon, *Radiology,* August 1970; cited, "Army Technologists: 29-Year Follow Up for Cause of Death" —Jul, 10

Seltzer, Raymond, chairman of Committee to Review the Use of Ionizing Radiation for the Treatment of Benign Diseases, Division of Medical Sciences, National Research Council Assembly of Life Sciences; *see A Review of the Use of Ionizing Radiation for the Treatment of Benign Diseases*

Sevilla, Elena: *see* Human Rights, National Academy of Sciences Committee on

Shcharanskiy, Anatoliy: *see* Human Rights, National Academy of Sciences Committee on

Singgih, Kamaluddin: *see* Human Rights, National Academy of Sciences Committee on

Slichter, William P., chairman of Committee on Scientific and Technological Aspects of Materials Processing in Space; *see Materials Processing in Space*

Sliepcevich, Cedomir J., chairman of Ad Hoc Panel on Liquefaction of Coal; *see Assessment of Low- and Intermediate-Btu Gasification of Coal; Assessment of Technology for the Liquefaction of Coal; Assessment of Technology for the Liquefaction of Coal: Summary*

"Smallpox: Beaten at Last?", essay by DeWitt Stetten, Jr., deputy director for science, National Institutes of Health; adapted from remarks in presentation of *Public Welfare Medal* to Donald Ainslie Henderson—Jul, 1, 9; *see also* awards, National Academy of Sciences

Sutayasa, I. Made: *see* Human Rights, National Academy of Sciences Committee on

social problems: *see CETA [Comprehensive Employment and Training Act]: Assessment and Recommendations;* Child Development Research and Public Policy; *Common Processes in Habitual Substance Use: A Research Agenda;* Decennial Census Plans, Panel on; *Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates; Retention of Minority Students in Engineering; Science, Engineering, and Humanities Doctorates in the United States: 1977 Profile*

Social Science Research Council: *see Wheat in the People's Republic of China*

Sociotechnical Systems, National Research Council Commission on: new projects announced: Air Transportation Research Information Service; Continuation of Services to the Federal Highway Administration; Maritime Research Information Service; Research and Development Needs in Construction Engineering Management; Studies of International Disaster Assistance; Transportation Technology Support for Developing Countries—Jan, 3; Maritime Hazardous Materials—Mar, 3; Reliability of Ceramics for Gas Turbine Applications—Apr, 3; A Continuing Program of Studies on International Disaster Assistance; Critical Issues in Coal Transportation—Land and Water Systems; Maritime Services to Support Polar Development; National Defense Potential of Vessels and Craft Not Currently Included in Military Contingency Planning—May, 3; Helicopter Gear Materials; Ion Implantation and Competing New Surface Treatment Technologies; Liquefied Natural Gas; Science Base for Materials Processing; Technological Potential for Amorphous and Metastable Materials for Military Applications—Jun, 3; Committee on Color Measurement, Advisory Board on Military Personnel Supplies; Maritime Support for Developing Ocean Resources —Aug, 2; Committee on Steel Research —Sept, 2; Second International Workshop on Low-Volume Roads—Oct, 3; Committee on Alternatives for the Reduction of Chlorofluoromethane Emissions; Preparation of Ultra-High-Purity, Low-Boron Silicon; Study of the Role of the Mass Media in Disaster Reporting—Dec, 3; *see also Assessment of Low- and Intermediate-Btu Gasification of Coal; Assessment of Technology for the Liquefaction of Coal; Assessment of Technology for the Liquefaction of Coal: Summary; Contingency Plans for Chromium Utilization; Erosion Control in Energy Systems;* Liquefied Natural Gas, Panel on; *Report of the Committee on the Steel Industry Study for the Office of Science and Technology Policy*

space: *see* "Global Weather Experiment"; *Materials Processing in Space; Microwave Remote Sensing from Space for Earth Resource Surveys;* National Academy of Sciences; *Post-Viking Biological Investigations of Mars; Recommendations on Quarantine Policy;* Review of the Space Shuttle Main Engine Development Program, Ad Hoc Committee for; "20 Years Ago, the Jittery Entry of U.S. Science into Space"

Space Engineering Board, National Research Council Assembly of Engineering: *see Materials Processing in Space*

Space Science Board, National Research Council Assembly of Mathematical and Physical Sciences: *see* "Global Weather Experiment"; *Recommendations on Quarantine Policy; Post-Viking Biological Investigations of Mars*

State, U.S. Department of: *see* "Global Weather Experiment"

Steel Industry Study for the Office of Science and Technology Policy, Committee on, National Research Council National Materials Advisory Board: *see Report of the Committee on the Steel Industry Study for the Office of Science and Technology Policy*

Stetten, DeWitt, Jr.: *see* "Smallpox: Beaten at Last?"

Stockmayer, Walter H., chairman of Numerical Data Advisory Board Committee on Data Needs; *see National Needs for Critically Evaluated Physical and Chemical Data*

Strengthening U.S. Programs to Improve Health in Developing Countries, Committee on International Health, Division of International Health, Institute of Medicine; excerpt—Aug, 3

Study on Food Safety and Food-Safety Policy, Committee for, of the Institute of Medicine and the National Research Council Assembly of Life Sciences; formed to study the possible risks and possible benefits to human health of foods containing substances known to be carcinogenic or otherwise toxic to laboratory animals, and to review Federal regulatory policies relating to these substances, at the request of the U.S. Department of Health, Education, and Welfare—May, 1

Study to Develop an Integrated Manpower Policy for Primary Care, Steering Committee, Division of Health Manpower and Resources Development, Institute of Medicine: *see A Manpower Policy for Primary Health Care: Report of a Study*

Substance Abuse and Habitual Behavior, Committee on, National Research Council Assembly of Behavioral and Social Sciences: *see Common Processes in Habitual Substance Use: A Research Agenda*

Sulfur Oxides, Committee on Sulfur Oxides, Board on Toxicology and Environmental Health Hazards, National Research Council Asembly of Life Sciences; the committee reviewed data on sulfur oxides for the Environmental Protection Agency to consider in updating air-quality standards for sulfur oxides. Findings generally support 1971 U.S. standards, the committee felt, but data in many areas are still incomplete or conflicting; toxicological studies show the hazards of long-term exposures to low levels of sulfur dioxide, for example, but fail to reveal what dangers there might be in brief exposures to high levels. The committee found no serious threat to vegetation from atmospheric sulfates, but said that possible interactions of sulfur oxides and other pollutants in the air are "neither well understood nor consistent"—Dec, 1, 2-3

Sulfur Oxides, Committee on, Board on Toxicology and Environmental Health Hazards, National Research Council Assembly of Life Sciences: *see Sulfur Oxides*

Suomi, Verner E., chairman of the U.S. Committee for the Global Atmospheric Research Program, which prepared *The Global Weather Experiment—Perspectives on its Implementation and Exploitation*

Surface Mining and Reclamation, Committee on, Board on Mineral and Energy Resources, National Research Council Commission on Natural Resources; committee is conducting a study to determine whether, and at what costs, environmental-protection requirements applied to coal mining can be met in surface and open-pit mining of other minerals—Aug, 1

Surface Mining Control and Reclamation Act of 1977 (Public Law 95-87): *see* Surface Mining and Reclamation, Committee on

Technological Innovation and Forces for Change in the Mineral Industry, Committe on Mineral Technology, Board on Mineral and Energy Resources, National Research Council Commission on Natural Resources; noting that the U.S. mining industry has been slow to innovate, the committee stressed the need for change in the industry's operating philosophy and improvement in mining methods to cope with the problems of lower-quality ores, better disposal of mine tailings, and other environmental concerns in the next five to ten years—Jun, 1, 5

Technology Innovation, Advisory Committee on, Board on Science and Technology for International Development, National Research Council Commission on International Relations: *see Methane Generation from Human, Animal, and Agricultural Wastes; Workshop on Solar Energy for the Villages of Tanzania*

Toxicology and Environmental Health Hazards, Board on, National Research Council Assembly of Life Sciences: *see* Odors from Stationary and Mobile Sources, Committee on; *Sulfur Oxides*

Toxicology, Committee on, National Research Council Assembly of Life Sciences: *see A Review of the Role of Health Sciences in the Consumer Product Safety Commission*

transportation: *see Evaluation of Research on Surrogates for Humans in Motor Vehicle Crashes;* Liquefied Natural Gas, Panel on

Transportation, U.S. Department of: *see* "Global Weather Experiment"

Trytten, Merriam H., former director, National Research Council Office of Scientific Personnel, died Sept. 8, 1978—Nov, 3

Tukey, John W., chairman of Committee on the Impacts of Stratospheric Change; *see Response to the Ozone Protection Sections of the Clean Air Act Amendments of 1977: An Interim Report*

Turk, Amos, chairman; *see* Odors from Stationary and Mobile Sources, Committee on

Twelfth International Cancer Congress: *see* Human Rights, National Academy of Sciences Committee on

"20 Years Ago, the Jittery Entry of U.S. Science into Space," *News Report;* historical account of early U.S. satellite efforts with excerpts from 1958 *News Report* essays by Hugh Odishaw—Feb, 4-5

U.S. Army Corps of Engineers: *see Safety of Dams*

U.S. Science and Technology for Development: A Contribution to the 1979 U.N. Conference. Background Study on Suggested U.S. Initiatives for the U.N. Conference on Science and Technology for Development, Vienna, 1979, Executive Committee, Study on U.S. Initiatives for the U.N. Conference on Science and Technology for Development, of the National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council; excerpt—Nov, 7

United Nations: *see* "Global Weather Experiment"; *U.S. Science and Technology for Development*

United Nations Conference on Science and Technology for Development: *see U.S. Science and Technology for Development*

United Republic of Tanzania National Scientific Research Council: *see Methane Generation from Human, Animal, and Agricultural Wastes; Workshop on Solar Energy for the Villages of Tanzania*

United States Government: *see names of individual agencies*

Van Allen, James A., speaker at space-science symposium in February 1978; *see* "20 Years Ago, the Jittery Entry of U.S. Science into Space"

Veterans Administration: *see* "Army Technologists: 29-Year Follow Up for Cause of Death"

W. K. Kellogg Foundation: *see A Manpower Policy for Primary Health Care: Report of a Study*

Walsh, Don, chairman of Committee on Aquaculture; *see Aquaculture in the United States*

Wheat in the People's Republic of China (CSCPRC Report Number 6); trip report of the American Wheat Studies Delegation submitted to: Committee on Scholarly Communication with the People's Republic of China, National Research Council Commission on International Relations; American Council of Learned Societies; and Social Science Research Council; excerpt—Mar, 7

Wiesner, Jerome B.: *see* "Global Weather Experiment"

Wiwoho, Bursono: *see* Human Rights, National Academy of Sciences Committee on

World Health Organization: *see* "Smallpox: Beaten at Last?"

World Meteorological Organization: *see* "Global Weather Experiment"; *The Global Weather Experiment—Perspectives on its Implementation and Exploitation*

World Weather Watch: *see* "Global Weather Experiment"